

**AMENDMENTS TO THE CLAIMS**

1 – 25. (Canceled)

26. (Previously Presented) A device according to claim 29, wherein the control unit and the dressing are integrated with each other.

27 – 28. (Canceled)

29. (Currently Amended) A device for treating tissue, the device comprising:  
a dressing for applying to a treatment area of said tissue;  
a pair of electrodes affixed to a treatment surface of the dressing; and  
a control unit for passing alternating current to the treatment area via the electrodes  
and for constantly varying the amplitude of the alternating current to electrically stimulate  
and repair said tissue.

30. (Original) A device according to claim 29, wherein the alternating current is varied between 50 and 500 microamps.

31. (Previously Presented) A device according to claim 29, wherein the frequency of the alternating current is varied between 10 and 900 hertz.

32. (Currently Amended) A device according to claim 29, wherein the time period between each variation of amplitude ~~and/or frequency~~ is 0.1 s.

33. (Previously Presented) A device according to claim 29, wherein the alternating current has a ramp waveform.

34. (Withdrawn) A device according to claim 26, wherein the control unit is etched into a substrate.

35. (Previously Presented) A device according to claim 29, wherein the control unit comprises:  
a housing; and  
electronic circuitry in the housing connected to the pair of electrodes.

36. (Previously Presented) A device according to claim 35, wherein the electronic circuitry comprises memory storing at least one program for determining the amplitude, frequency and waveform of alternating current supplied to the electrodes.

37. (Previously Presented) A device according to claim 36, wherein the control unit further comprises an i/o port connected to the electronic circuitry, such that an external device can connect to the control unit via the i/o port and update the memory and controlling operation of the control unit.

38. (Previously Presented) A device according to claim 37, wherein the control unit further comprises a wireless transceiver connected to the electronic circuitry, such that an external device can wirelessly connect to the control unit via the i/o port and update the memory and control operation of the control unit.

39. (Previously Presented) A device according to claim 35, wherein the control unit comprises:

- a pair of activation electrodes; and
- a removable tab including a metallic strip connecting the activation electrodes,

wherein the electronic circuitry detects when a current can pass between the activation electrodes and only supplies current to the output electrodes when the tab is removed such that no current passes between the activation electrodes.

40 – 47. (Canceled)

48. (Previously Presented) A device according to claim 29 wherein the control unit is also for constantly varying the frequency of the alternating current.